

Appendix E

```
' ***** LCD PANEL *****  
' PIC16F819
```

```
' * SET UP BASIC ENVIRONMENT  
  DEFINE CHAR_PACING 1000
```

```
' PORTA.0 = CURRENT SENSE  
' PORTA.1 = POT  
' PORTA.2 = THERMISTOR  
' PORTA.3 = VOLTAGE SENSE  
' PORTA.4 =  
' PORTA.5 =
```

```
' PORTB.0 =  
' PORTB.1 =  
' PORTB.2 = NPN  
' PORTB.3 = FORMERLY NPN  
' PORTB.4 = PNP  
' PORTB.5 =  
' PORTB.6 =  
' PORTB.7 =
```

```
' *****  
' *  
' * ENVIRONMENT *  
' *  
' *****
```

```
  DEFINE CHAR_PACING 1000
```

```
' *****  
' *  
' * VARIABLES *  
' *  
' *****
```

```
N      VAR      BYTE  
X      VAR      BYTE  
Y      VAR      BYTE  
Z      VAR      BYTE
```

```
X2     VAR      WORD  
Y2     VAR      WORD
```

```
MISCF  VAR      BYTE      BANK0
```

```
LCNT   VAR      BYTE  
VOLTS  VAR      WORD  
VOUT   VAR      WORD  
CURRENT VAR      WORD  
AMP     VAR      WORD  
TEMP   VAR      WORD
```

```
VIDLE  VAR      WORD  
VMAX   VAR      WORD
```

```
POTBUF  VAR      WORD(8)  
ACNT    VAR      BYTE
```

```
ALoop  VAR      BYTE  
ELoop  VAR      BYTE  
PVOLT  VAR      WORD  
OTIME  VAR      WORD      BANK0
```

```
BUCK    VAR      BYTE
```

```
ssave  VAR BYTE BANK0 SYSTEM  
psave  VAR BYTE BANK0 SYSTEM  
wsave  VAR BYTE $20 SYSTEM  
wsave1 VAR BYTE $A0 SYSTEM
```